

LIMITED WARRANTY PROJECTION TELEVISION

One Year Free Labor
One Year Free Service on Parts
Two Years Free Service on Cathode Ray Tube Parts / 30 days Free Service on Projection TV Screen
This product can be repaired at-home

WHO IS COVERED?

You must have proof of purchase to receive warranty service. A sales receipt or other document showing that you purchased the product is considered proof of purchase.

WHAT IS COVERED?

Warranty coverage begins the day you buy your product. For one year thereafter (30 days for the projection TV screen), all parts will be repaired or replaced, and labor and transportation are free. From one to two years from the day of purchase, you pay for the replacement or repair of all parts except the cathode ray tube and the "Clear-Vu" lens, and for all labor and transportation charges. After two years from the day of purchase, you pay for the replacement or repair of all parts except the "Clear-Vu" lens (which is guaranteed against manufacturer's defects for the life of the product), and for all labor and transportation charges.

All parts, including repaired and replaced parts, are covered only for the original warranty period. When the warranty on the product expires, the warranty on all replaced and repaired parts also expires.

WHAT IS EXCLUDED?

- Your warranty does not cover:
- labor charges for installation or setup of the product, adjustment of customer controls on the product, and installation or repair of antenna systems outside of the product;
 - product repair and/or part replacement because of misuse, accident, unauthorized repair or other cause not within the control of Philips Consumer Electronics Company;
 - reception problems caused by signal conditions or cable or antenna systems outside the unit;
 - a product that requires modification or adaptation to enable it to operate in any country other than the country for which it was designed, manufactured, approved and/or authorized, or repair of products damaged by these modifications;
 - incidental or consequential damages resulting from the product. (Some states do not allow the exclusion of incidental or consequential damages, so the above exclusion may not apply to you. This exclusion, but is not limited to, pre-recorded material, whether copyrighted or not copyrighted);
 - a product used for commercial or institutional purposes.

WHERE IS SERVICE AVAILABLE?

Warranty service is available in all countries where the product is officially distributed by Philips Consumer Electronics Company. In countries where Philips Consumer Electronics Company does not distribute the product, the local Philips service organization will attempt to provide service (although there may be a delay if the appropriate spare parts and technical manual(s) are not readily available).

MAKE SURE YOU KEEP...

Please keep your sales receipt or other document showing proof of purchase. Attach it to this owner's manual and keep both nearby. Also keep the original box and packing material in case you need to return your product.

BEFORE REQUESTING SERVICE...

Please check your owner's manual before requesting service. Adjustments of the controls discussed there may save you a service call.

TO GET WARRANTY SERVICE...

Repair must be performed by an authorized service center or a factory service center. If you do not have a factory service center, contact your dealer. If your dealer is not an authorized service center, he will direct you to the authorized service center. Engaged by him to service the products he sells.

(In U.S.A., Puerto Rico and U.S. Virgin Islands, all implied warranties, including implied warranties of merchantability and fitness for a particular purpose, are limited in duration to the duration of the express warranty. But, because some states do not allow limitations on how long an implied warranty may last, this limitation may not apply to you.)

(In Canada, this warranty is given in lieu of all other warranties. No other warranties are expressed or implied, including any implied warranties of merchantability or fitness for a particular purpose. Philips is not liable under any circumstances for any direct, indirect, special, incidental or consequential damages, however incurred, even if notified of the possibility of such damages.)

IF YOU HAVE QUESTIONS...

Please contact Philips at:
1-800-661-6162 (French Speaking)
1-800-363-7278 (English Speaking)

REMEMBER...

Please record the model and serial numbers found on the product below. Also, please fill out and mail your warranty registration card promptly. It will be easier for us to notify you if necessary.

MODEL # _____

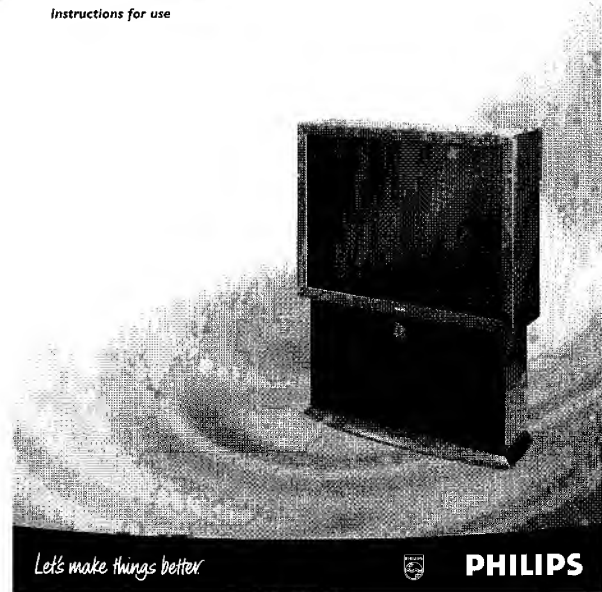
SERIAL # _____



This warranty provides specific legal rights. You may have other rights which vary from state to state. Philips Service Company, P.O. Box 2976, Longview, Texas 75606, (903) 242-4800



Instructions for use



Let's make things better



PHILIPS

31 95 015-14941

Return your Warranty Registration card today to ensure you receive all the benefits you're entitled to.

Once your PHILIPS purchase is registered, you're eligible to receive all the privileges of owning a PHILIPS product. So complete and return the Warranty Registration Card enclosed with your purchase at once. And take advantage of these important benefits.

Warranty Verification

Registering your product within 10 days confirms your right to maximum protection under the terms and conditions of your PHILIPS warranty.

Owner Confirmation

Your completed Warranty Registration Card serves as verification of ownership in the event of product theft or loss.

Model Registration

Returning your Warranty Registration Card right away guarantees you'll receive all the information and special offers which you qualify for as the owner of your model.

Congratulations on your purchase, and welcome to the "family!"



PHILIPS



Dear PHILIPS product owner:

Thank you for your confidence in PHILIPS. You've selected one of the best-built, best-backed products available today. And we'll do everything in our power to keep you happy with your purchase for many years to come.

As a member of the PHILIPS "family," you're entitled to protection by one of the most comprehensive warranties and outstanding service networks in the industry. What's more, your purchase guarantees you'll receive all the information and special offers for which you qualify, plus easy access to accessories from our convenient home shopping network. And most importantly you can count on our uncompromising commitment to your total satisfaction. All of this is our way of saying welcome—and thanks for investing in a PHILIPS product.

Sincerely,

Robert Minkhorst
President and Chief Executive Officer

P.S. Remember, to get the most from your PHILIPS product, you must return your Warranty Registration Card within 10 days. So please mail it to us right now!

Know these safety symbols



▲ This "bolt of lightning" indicates uninsulated material within your unit which may cause an electrical shock. For the safety of everyone in your household, please do not remove product coverings.

▲ The "exclamation mark" calls attention to features for which you should read the enclosed literature closely to prevent operating and maintenance problems.

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS EQUIPMENT TO WATER OR MOISTURE.

CAUTION: To prevent electric shock, match wide blade of plug to wide slot, and fully insert.

ATTENTION: Pour éviter les chocs électriques, introduire la lame la plus large de la fiche dans la borne correspondante de la prise et pousser jusqu'au fond.

Let's make things better

INTERNET ADDRESS: <http://www.philipsusa.com>

SAFETY INSTRUCTIONS - Read before operating equipment

This product was designed and manufactured to meet strict quality and safety standards. There are, however, some installation and operation precautions which you should be particularly aware of.

- **Read Instructions** – All safety and operating instructions should be read before the appliance is operated.
- **Read the Manual** – The user manual and the instructions should be retained for future reference.
- **Head Warnings** – All warnings on the appliance and in the operating manual should be read and understood.
- **Follow Instructions** – All operating and use instructions should be followed.
- **Water and Moisture** – The appliance should not be used near water, for example, near a bathtub, wastewater, kitchen sink, laundry tub, etc. The appliance should not be used outdoors.
- **Cords and Switches** – The appliance should be used only with a cord that meets the requirements of the applicable code.
- **Flammable and Combustible Materials** – An appliance and cord combination should be used with care with such items as: Candles, torches, excessive heat, and solvents. The appliance may cause the ignition of flammable and combustible materials.
- **Flammable Gases** – The appliance must comply with recommended international safety standards for flammable and combustible gases.
- **Do not** – Do not overcome these design standards by applying extra pressure, or by using the appliance in a way that could ultimately overheat the product.
 - **Also, do not** endanger yourself, or children, by placing electrical equipment or other items in the cabinet, or placing the appliance close to the floor, or the top of the case and causing the appliance to overheat and possibly catch fire.
- **Wait or Ceiling Movement** – The appliance should be mounted to a wall or ceiling that is strong enough to support the weight of the appliance.
- **Ventilation** – The appliance should be installed so that its location or position does not interfere with the proper ventilation. For example, the appliance should not be installed in a location where the surface that may block the ventilation openings, or placed in a location where the appliance may be exposed to the flow of air from the floor or under the ventilation openings.
- **Prohibit** – Do not place any objects or other heat sources such as radiators, heat registers, stoves, or other appliances (including appliances) that produce heat.
- **Power** – The appliance should be connected to a power source that supply only the type described in the operating instructions or the label.

- 11. Power-Cord Protection:** Power supply cords should be treated so that they are not likely to be walked on or run over by heavy objects, and should be protected from cuts and abrasions. There should be no exposed electrical connections, frayed or damaged insulation, frayed or damaged conductive parts, loose connections, or damaged components. The power cord should be kept away from the following:
- A. Heat, steam, and other heat-producing appliances or equipment.
 - B. Oils, greases, solvents, acids, alkalis, and other corrosive materials.
 - C. Cleaning - The appliance should be cleaned only as recommended by the manufacturer.
 - D. Power - The power or antenna should be located away from power lines.
- 12. Outdoor Antenna Grounding:** If an antenna system connected with the appliance is to be used, the antenna system should be grounded in such a way that no protection against voltage surges and built-up static charges can be lost.
- Section 90.0 of the National Electric Code, ANSI/NFPA 70-7084, requires that an antenna system be grounded in accordance with the following:
- A. The antenna system should be grounded to the building's main ground and supporting structure grounding of the lead-in wire to the antenna discharge unit, size of grounding conductor, location of grounding unit, and type of grounding.
 - B. The antenna system should be grounded in accordance with the requirements for the grounding electrode. See Fig. 14a.
 - C. The antenna system should be grounded to the building's main ground and supporting structure grounding of the lead-in wire to the antenna discharge unit.
- 13. Object and Liquid Entry:** Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.
- 14. Damage Requiring Service:** The appliance should be serviced only by a qualified service technician if any of the following conditions exist:
- A. The power supply cord or the plug has been damaged; or
 - B. Objects have fallen, or liquid has been spilled into the appliance; or
 - C. The appliance has been exposed to rain; or
 - D. The appliance has been dropped, or the cabinet is cracked or exhibits a marked change in performance; or
 - E. The appliance has been exposed to fire or excessive moisture.
- 15. Servicing:** - The user should not attempt to service the appliance beyond that described in the operating instructions. All other servicing should be referred to a qualified service technician.

Note to the CATV system installer: This reminder is provided to call the CATV system installer's attention to Article 820-40 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

Example of Antenna Grounding as per NEC - National Electric Code

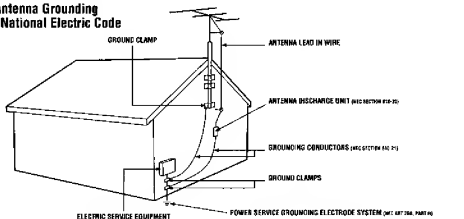



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SET-UP AND QUICK USE GUIDE

Use the simple Set-Up Guide (supplied with your TV information packet) for details on:

- Antenna Hook-ups
- First Time Set-Up (Automatic Settings)
- Basic TV and Remote Control Operation
- On-Screen Menu Use



NOTE: This owner's manual is used with several different television models. Not all features (and drawings) discussed in this manual will necessarily match those found with your television set. This is normal and does not require you contacting your dealer or requesting service.

Because of continuous product improvements, the information mentioned in the documents accompanying your

QUALITY SERVICE IS AS CLOSE AS YOUR TELEPHONE! SIMPLY LOOK OVER THE LIST BELOW FOR THE NUMBER OF A FACTORY SERVICE CENTER NEAR YOU. YOUR PRODUCT WILL RECEIVE EFFICIENT AND EXPEDIENT CARRY-IN, MAIL-IN, OR IN-HOME SERVICE, AND YOU WILL RECEIVE PEACE OF MIND, KNOWING YOUR PRODUCT IS BEING GIVEN THE EXPERT ATTENTION OF PHILIPS' FACTORY SERVICE. AND, IF THE PHONE NUMBER LISTED FOR YOUR AREA IS LONG DISTANCE, CALL 1-800-242-9225 FOR FACTORY SERVICE.

COMMENT OBTENIR NOTRE SERVICE APRÈS VENTE RAPIDE ET EFFICACE SOIT PAR COURRIER, À DOMICILE, OU EN SE PRÉSENTANT À UN CENTRE DE SERVICE PHILIPS PLUS DE 600 CENTRES DE RÉCEPTION DE PRODUITS À RÉPARER À TRAVERS LE PAYS. CONTACTER LE CENTRE DE SERVICE AUQUEL VOUS MANIFESTEZ LE PLUS PROCHE POUR SAVOIR L'EMPLACEMENT DE CES DÉPÔTS DANS UN RAYON DE 50 À 250 KILOMÈTRES ENVOI À 120 KILOMÈTRES DE SERVICE LOCAL.

CÓMO OBTENER UN SERVICIO OPORTUNO Y EFICIENTE POR COPPIO, EN CASA O EN PERSONA PARA SU PRODUCTO A TRAVÉS DE UN CENTRO PHILIPS DE SERVICIO: MÁS DE 600 SITIOS POR TODO EL PAÍS PARA LA RECEPCIÓN DE PRODUCTOS NECESITADOS DE REPARACIONES; COMUNICACIÓN CON EL CENTRO DEL SERVICIO O LA FÁBRICA MÁS CERCANA PARA ESTOS LUGARES DENTRO DE UN RÁDIO DE 80 A 120 KM (50 A 75 MILES) DEL CENTRO DE SERVICIO LOCAL.

<p>GEORGIA Phillips Factory Service of Georgia 201 N. Cobb Pkwy., Suite 120 Marietta, GA 30062 (770) 755-0085</p>	<p>CENTRAL U.S.A. Phillips Factory Service Central US 960 Kentucky Oaks Brooklyn Heights, OH 44131 (216) 741-3354</p>	<p>ILLINOIS Phillips Factory Service of Illinois 1275 W. Hamilton Pkwy. Itasca, IL 60143 (708) 775-0960</p>
<p>FLORIDA Phillips Factory Service of Florida 1911 US Highway 301 North Tampa, FL 33619 (813) 621-8181</p>	<p>MICHIGAN Phillips Factory Service of Michigan 25-73 Dequindre Madison Heights, MI 48071 (248) 544-2110</p>	<p>TENNESSEE Phillips Factory Service of East Tennessee 6700 D Papermill Rd. Knoxville, TN 37919 (423) 584-6164</p>
<p>WESTERN U.S.A. Phillips Factory Service Western Region 681 East Broadway Rd. San Jose, CA 95112 (408) 436-8566</p>	<p>DALLAS AREA Phillips Factory Service of Dallas 415 E. Main Street, #107 Euless, TX 76040 (714) 682-3960</p>	<p>MID-ATLANTIC Phillips Factory Service Mid-Atlantic 250 Dupont Ferry Rd. Bensalem, PA 19009 (215) 638-7530</p>
<p>TEXAS Phillips Factory Service of Texas 1110 N. Post Oak Rd., Suite 100 Houston, TX 77065 (713) 682-3990</p>		

Philips Consumer Electronics Company Factory Service Center Locations



NOTE: If you reside in one of our Philips Factory Service Branch areas (see directory on back), you can contact the nearest Service Branch to obtain efficient and expedient repair for your product. If your product is in Warranty, you should have proof of purchase to ensure No Charge Service. For Out of Warranty service, call the location nearest you.

NOTE: Si vous résidez dans une des régions desservies par une succursale de service après-vente du fabricant Philips (voir liste ci-dessous), vous pouvez contacter la branche de service après-vente la plus près de chez vous pour obtenir un service après-vente rapide et efficace. Si votre produit est sous garantie, il suffit de présenter une preuve d'achat pour bénéficier d'un service sans frais. Pour les produits non couverts par la garantie, contactez le centre le plus près de chez vous.

NOTE: Si Ud. reside en una de nuestras zonas para sucursales Philips de servicio al de fábrica (ver directorio más atrás), Ud. puede comunicarse con la sucursal de servicio más cercana para obtener una reparación oportuna y eficaz de su producto. Si su producto está todavía bajo garantía, Ud. debe presentar comprobante de compra para no incurrir en ningún cargo por servicio. Para servicio después del vencimiento de la garantía, llame al lugar más cercano de los abajo indicados.

In Canada

How you can obtain efficient and expedient carry-in, mail-in, or in-home service for your product. Please contact Philips at:
1-800-661-6162 (French speaking)
1-800-363-7278 (English speaking)

En Canada

Comment obtenir le service après-vente pour les produits apportés en magasin, par la poste à notre centre de service ou le service à domicile. Veuillez contacter Philips à:
1-800-661-6162 (Français)
1-800-363-7278

En el Canadá

Cómo recibir servicio eficiente para su producto, en persona, por correo o a domicilio. Por favor comuníquese con Philips a:
1-800-661-6162 (francés)
1-800-363-7278 (inglés)

MAC929 1/96

FEATURES

First Time Set Up - automatically sets the TV for local channels, the correct picture signal (antenna or cable), and assists in the setting of TV's Smart Clock feature.

Infrared Remote Control - operates your TV set and a variety of wireless remote control VCRs, Cable TV Converters, and other accessory equipment. A special "Locator" feature can also help you find the remote control when it has been stuck out of sight or misplaced.

Standard TV broadcast (VHF/UHF) or Cable TV (CATV) channel capability.

Closed Captioning - allows the viewer to read TV program dialogue or voice conversations as on-screen text.

Automatic Programming of channels - for quick and easy selection of favorite stations available in your area.

Picture-In-Picture (PIP) - can show a TV program and the direct video output from an accessory (VCR, etc.) onto the TV screen at the same time.

Parental Control for "Censoring" - this feature can block out channels to keep children from watching undesirable programming.

Stereo-TV - with a built-in audio amplifier and a twin speaker system, reception of TV programs in both broadcast stereo sound or (SAP) bilingual broadcast are available.

Twins Antenna (A/B) Inputs - for easy displaying of two separate signal sources on the TV. An A/B button on the remote control switches the TV's Main screen between the two Antenna (A & B) Input options.

Audio/Video Jacks - for direct connections with VCRs (and other accessories) for quality TV picture and sound playback. Component video input connectors are also available for high-fidelity color and picture resolution when using digital video source material, such as DVD.

Surround Sound - this TV set contains external; audio speaker connections for a more dynamic sound effect.

Sleep-Timer - automatically turns the TV OFF at preset time intervals.

Smart Button - for the control of TV Sound and the Picture levels. Use the Smart Button on the remote to quickly adjust Smart Sound (to select various audio modes matched to specific types of TV programming); Smart Picture (for programmed video level adjustments on a variety of program sources); and Smart Surf (for quick one button channel selection of up to 10 of your favorite channels).

As you unpack your TV please note that the following items have been included with your set:

- Owner's Manual
- Safety Tip Information
- Factory Service Center Locations
- Warranty Registration Card
- Remote Control Transmitter
- Batteries for Remote Control Use

Please take a few minutes to complete your registration card. The serial number for the TV is on the back of the set.

Refer to the back of this manual for instructions on the cleaning and care of the TV.

End-of-Life disposal

Your new projection television and its packaging contain materials that can be recycled and reused. Specialized companies can recycle your product to increase the amount of reusable materials and minimize the amounts which need to be properly disposed.

Your product also uses batteries which should not be thrown away when depleted, but should be handled in and disposed of as small chemical waste.

Please find out about the local regulations on how to dispose of your old television, batteries, and packaging materials whenever you replace existing equipment.

PICTURE MENU CONTROL ADJUSTMENTS

COLOR, BRIGHTNESS, SHARPNESS, TINT, PICTURE

To adjust your TV color and picture controls, select a TV channel and follow the steps shown below:

1. Select BRIGHTNESS, PICTURE, COLOR, TINT, or SHARPNESS picture control.
2. With the PICTURE MENU on screen, move the RED highlight with the MENU (M) button. Then press the MENU button.
3. Press the (+) or (-) buttons to adjust the selected control.
4. Press the STATUS button to clear the screen.

SMART HELP

Remember: When the bar scale is centered, control settings are at normal mid-range levels.

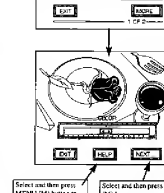
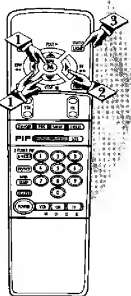
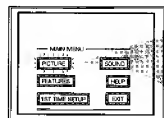
BRIGHTNESS Press (+) or (-) until data parts of the picture show good detail.

PICTURE Press (+) or (-) until whitest parts of the picture are as bright as you prefer.

COLOR Press (+) or (-) to add or eliminate color.

TINT Press (+) or (-) to obtain natural skin tones. (Also see Flesh Correction on page 9 for more information).

SHARPNESS Press (+) or (-) to improve detail in the picture.



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* QU indicates page number reference in the separate Quick Use Guide

GLOSSARY TO TELEVISION TERMS

Audio/Video Inputs * Located on the rear of the TV these connectors (RCA phono type plug) are used for the input of audio and video signals. Designed for use with VCRs (or other accessories) in order to receive higher picture resolution and offer sound connection options.

Coaxial Cable * A single solid antenna wire normally matched with a metal plug (F-type) end connector that screws (or pushes) directly onto a 75 Ohm input found on the Television or VCR.

Display * An on screen message or graphics that help the user operate and adjust TV feature controls. See On Screen Displays (OSD).

Identify * Method by which a remote control searches and finds an operating code for another product (such as a VCR or Cable Converter). Once the code has been "identified" then the TV remote can operate and send commands to the other product.

LED * Light Emitting Diode or indicator.

Menu * A on-screen listing of feature controls shown on the TV screen that are made available for user adjustments.

Multichannel Television Sound (MTS) * The broadcast standard that allows for stereo sound to be transmitted with the TV picture.

On Screen Displays (OSD) * Refers to the wording or messages generated by the TV to help the user with specific feature controls (color adjustment, programming, etc.).

Picture-In-Picture (PIP) * Term used when two pictures are shown on the TV screen at the same time. The smaller PIP picture is supplied by a VCR (or other tuner/video playback source). The PIP picture can also be moved and swapped with the TV's main screen picture.

Pre-Amplifier * The control center of a hi-fi system. Not only amplifies source inputs, but also allows for source selection, volume, tone, balance and all other controls that affect the sound.

Programming * The procedure of adding or deleting channel numbers into the TV's memory circuits. In this way the TV "remembers" only the locally available or desired channel numbers and skips over any unwanted channel numbers.

PTV * Projection Television (Rear and/or Front projection design systems are available).

Remote Sensor Window * A window or opening found on the TV control panel through which infrared remote control command signals are received.

RF * Radio Frequency or modulated signal design used as the carrier for television broadcasts.

Second Audio Program (SAP) * Another or additional audio channel provided for in the Multichannel Television Sound (MTS) broadcast standard. A positional soundtrack included within the recorded or video signal (usually containing a second language translation for the displayed programming).

Status * Allows the user to quickly confirm what channel number is currently being viewed. Status can also be used to clear the TV of on-screen displays or information (rather than waiting for the displays to "time out" or automatically disappear from the screen).

Subwoofer * A speaker designed for audio playback of only the lowest-frequency notes (under 100 Hz.).

S-Video Input * Allows direct connection of high-resolution video sources, such as a Super VHS videocassette recorder, Laser Disc player, etc. Provides improved picture resolution, sharpness, and clarity.

Twin Lead Wire * The more commonly used name for the two strand 300 Ohm antenna wire used with many indoor and outdoor antenna systems. In many cases this type of antenna wire requires an additional adapter (or balun) in order to connect to the 75 Ohm input terminals designed into the more recent Televisions and VCRs.

Variable Audio Output * An adjustable audio output which allows for volume variations at the source.

PICTURE MENU CONTROLS (CONTINUED)

CLEARVIEW

Clearview is a sharpness feature which smoothes out background snow (or picture noise) without losing picture image detail or crispness.

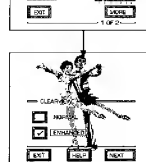
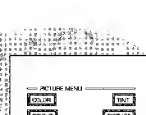
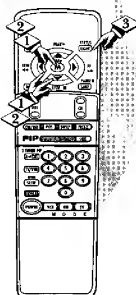
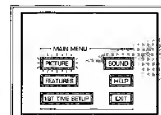
BEGIN

1 Select CLEARVIEW control.

With the PICTURE MENU on screen, move the RED highlight with the MENU (M) button. Then press the MENU button.

2 Press the MENU (M) buttons to move the RED highlight. Press the MENU button to select (✓) the ENHANCED mode.

3 Press the STATUS button to clear the screen.



PICTURE MENU CONTROLS (CONTINUED)

RED/BLUE CONVERGENCE

Convergence is the correct lining up of the red and blue light points on the TV screen.
NOTE: If no color fringing (see Smart Help) shows, then no Convergence adjustments are necessary for your TV.

BEGIN

1 Select CONVERGENCE control.

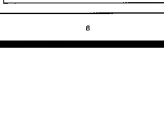
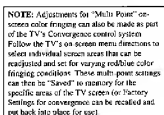
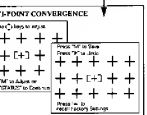
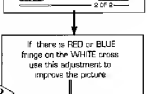
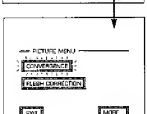
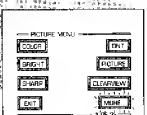
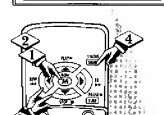
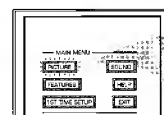
With PICTURE MENU (2 of 2) on screen, move the RED highlight with the MENU (M) button. Then press the MENU button.

2 If there is RED or BLUE color fringing on the White cross, press the MENU button to continue.

3 Press the MENU (M) buttons to move the red or blue cross directly over the white cross on the TV screen.

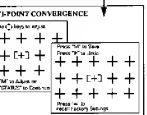
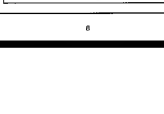
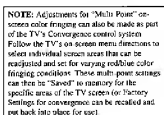
The red or blue cross is properly adjusted when it is completely merged with the white cross. (No color appears around the edge of the white cross).

4 Press the STATUS button to clear the screen when convergence adjustments are complete.



SMART HELP

Remember: Convergence has been set at the factory for best viewing, but if one or more of the (red or blue) colors appear around the edges of objects (color fringing) follow the steps given in this section.



TIPS IF SOMETHING ISN'T WORKING

Please make these simple checks before calling for service. These tips can save you time and money since charges for TV installation and adjustment of customer controls are not covered under your warranty.

No Power

- Check the TV power cord. Unplug the TV, wait 1 minute, then reinsert plug into outlet and push POWER button again.
- Check to be sure outlet is not on a wall switch.

No Picture

- Check antenna connections on the rear of the TV. Are they properly secured to the antenna plug on the TV?
- Check the CABLE TUNING control for correct position.
- Check PICTURE SOURCE control for correct position. ANT A or B, AUX 1/2, VIDEO, AUX Y, Pa Pr, or SIDE VIDEO position without a signal source will result in a blank screen.
- Check the CLOSED CAPTIONS control. Some TEXT modes could block the screen.

No Sound

- Check the VOLUME and MUTE buttons on the TV and remote.
- Check the TV SPEAKER NORMAL/OFF sound control for the correct position.
- If attempting auxiliary equipment hook-ups, check audio jack connections and that the auxiliary equipment is on and in the proper operating modes.

Remote Does Not Work

- Check VCR ACC-TV "System" buttons on the remote. Press the remote's TV System button to send commands to the TV. VCR System to send to VCR, etc.
- Check batteries. Replace with AA Heavy Duty (Zinc Chloride) or Alkaline batteries if necessary.
- Clean the remote and the remote sensor window on the TV.

TV Displays Wrong Channel or No Channels Above 13

- Repeat channel selection.
- Add desired channel numbers (ADD/DELETE CHANNELS control) into TV memory.
- Check CABLE TUNING control for correct position.

This TV is equipped with protective circuitry that shuts the TV off in case of moderate power surges. Should this occur turn the TV back on by pressing the POWER button once or twice, or unplug and then replug the power cord at the AC outlet. This feature is NOT designed to prevent damage due to high power surges such as those caused by lightning, which is not covered by your warranty.

Cleaning and Care


- To avoid possible shock hazard be sure the TV is unplugged from the electrical outlet before cleaning.
- When cleaning the TV screen take care not to scratch or damage the screen surface (avoid wearing jewelry or using anything abrasive; do not use household cleaners). Wipe the front screen with a clean cloth dampened with water. Use even, easy, vertical strokes when cleaning.
- Specially designed screen cleaning kits are also available which contain anti-static cleaners and cloths designed to get into the ridges of the TV screen. If interested, ask your dealer about an optional Projection TV Screen Cleaning Kit or call our toll-free Accessory Parts ordering number 1-800-451-8885.
- Gently wipe the cabinet surfaces with a clean cloth or sponge dampened in a solution of cool clear water and a mild soap or detergent. Use a clean dry cloth to dry the wiped surfaces.
- Occasionally vacuum the ventilation holes or slots in the cabinet back.
- Never use thinners, insecticide sprays, or other chemicals on or near the cabinet, as they might cause permanent marring of the cabinet's finish.

TV HELP MENU



The on screen **HELP** menu offers both **Operating Tips** and a list of **Glossary** definitions for different features on your TV. These items are given to provide you with more information and details on a select group of feature operations.

BEGIN

1 Select "HELP" on the TV's Main Menu.

Press the remote's Menu  buttons to move UP/DOWN and from SIDE-TO-SIDE within the list of on-screen features.

Press MENU (M) to select the highlighted "HELP" item.

2 Press the MENU  and then the MENU  buttons to select either the OPERATING TIPS or GLOSSARY item.

STEP

FOLLOW THE ON-SCREEN DIRECTIONS TO VIEW OPERATING TIPS

PICTURE MENU CONTROLS (CONTINUED)

FLESH CORRECTION

Use the Flesh Correction control to keep skin tone hues (or facial tint) from varying from TV channel to TV channel!

(BEGIN)

- 1 Select FLESH CORRECTION control.

With PICTURE MENU (2 of 2) on screen, move the RED highlight with the MENU (M) button. Then press the MENU button.

- 2 Press the MENU \blacktriangle button to move the RED highlight. Press the MENU button to turn the FLESH CORRECTION control ON.

- 3 Press the STATUS button to clear the screen.

FEATURE MENU ADJUSTMENTS

PICTURE SOURCE

The picture for the TV can come through either the ANTENNA plug on the AUDIO/VIDEO Input jacks (on the rear of the TV). The Picture Source control simply tells the TV which one of these picture sources it is to show on the TV screen.

(MENU)

1 Select PICTURE SOURCE SELECT control.

With the FEATURES MENU on screen, move the RED highlight with the MENU (M) button. Then press the MENU button.

2 Press the MENU (A) buttons to move the RED highlight. Press the MENU button to turn the desired PICTURE SOURCE control ON (✓).

ANT A or B - for a picture signal coming from either the ANT(ENNA) A or B Input jacks on the TV.

AUX 1 VIDEO - for a picture signal coming from the AUX 1 Video Input jack on the rear of the TV.

AUX 1 Y Pb Pr - for picture signals coming from the component (Y Pb Pr) Luminance and color input jacks on the rear of the TV.

AUX 2 VIDEO - for a picture signal coming from the AUX 2 Video Input jack on the rear of the TV.

SIDE VIDEO - for a picture signal coming from the Video Input jack on the right side panel of the TV.

3 Press the STATUS button to clear the screen.

END

SMART HELP

Remember, the Auxiliary

Input modes (AUX 1 VIDEO, etc.) must have a compatible video signal source properly connected (to the INPUT plug on the rear of the TV), or the TV screen will be blank.

Now A-5 VIDEO¹ (or D) input will appear as a PICTURE SOURCE. See PICTURE SOURCE on page 31 for the AUX 2 VIDEO (or AUX 1 Y Pb Pr) input. See PICTURE SOURCE on page 31 for the AUX 2 VIDEO (or AUX 1 Y Pb Pr) input. See PICTURE SOURCE on page 31 for the AUX 2 VIDEO (or AUX 1 Y Pb Pr) input.

MORE PIP CONNECTIONS

The following example is for an alternative PIP connection involving using an external Cable Converter Box and a VCR (as the picture source for the PIP window)

(BEFORE)

1 First use an optional signal splitter and connect the original cable TV signal to both: the CABLE IN on the Cable Converter and the ANTENNA A plug on the rear of the TV.

2 Connect the CABLE OUT on the Converter to the ANT. IN on the VCR.

3 Connect the VIDEO OUT Jack on the VCR to the VIDEO IN jack on the TV.

Also connect the AUDIO OUT (R and L) jacks from the VCR to the AUDIO IN jacks on the TV.

PIP

SMART TIP

Remember to use the Cable TV Converter Box to select channels for PIP. The VCR must be set to the same channel as the channel selection switch on the rear of the Cable Converter (either channel 3 or 4).

The ANTENNA A input (right) on the TV's Main screen picture, and the AUX 1 VIDEO Input connection from the VCR, serve as the picture source for PIP. But also see the TV's PIP SOURCE SELECT controls on the AUX 1 VIDEO mode to enable the Audio/Video Input signal values for PIP window

AUDIO VIDEO CABLES
(RCA Plug Cables optional)

Contact the Parts Information Center 1 800 831-8867 to order any optional accessories

VCR

CABLE TV CONVERTER

ADJUSTING PICTURE-IN-PICTURE COLOR AND TINT

PIP COLOR/PIP TINT

The Picture-In-Picture (PIP) Color and Tint controls are used to make fine tune adjustments to the color settings for PIP when it is shown on the TV screen.

BEGIN
Select PIP COLOR (or PIP TINT) control.

With FEATURES MENU (5 of 5) on screen, move the RED highlight with the MENU (M) button. Then press the MENU button.

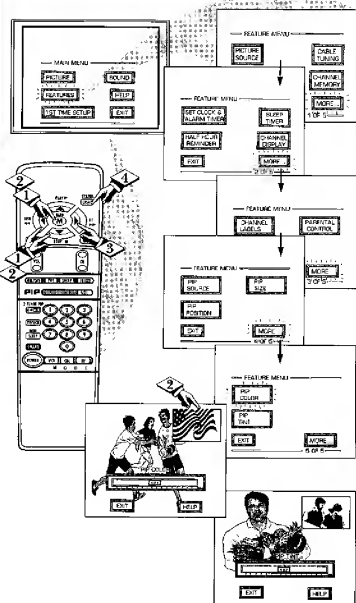
Press the MENU (M) buttons to move the RED highlight. Press the MENU button to select (M) the PIP COLOR or TINT control ON. The PIP automatically comes on to show the PIP window on the TV screen.

Press the (+) and (-) buttons to adjust the PIP for Color (or Tint) levels you prefer.

Press the STATUS button to clear the screen.

SMART HELP

Remember. Although there are separate COLOR and TINT controls for PIP, the adjustment levels for these controls depend on the TV's main picture. For example, if the main screen is showing a black and white picture, PIP would also be in black and white (even though its source is in color).



FEATURE MENU CONTROLS (CONTINUED)

CLOSED CAPTION

Closed Captioning (CC) allows you to read the voice content of television programs on the TV screen. Designed to help the hearing impaired, this feature uses on-screen "text boxes" to show dialogue and conversations while the TV program is in progress.

BEGIN
Select CLOSED CAPTIONING control.

With the FEATURES MENU on screen, move the RED highlight with the MENU (M) button. Then press the MENU button.

Press the MENU (M) buttons to move the RED highlight. Press the MENU button to select (M) the desired Closed Caption mode - For Example: "ALWAYS ON" or "CAPTION 1".

CAPTION 1, 2, 3, 4: dialogue (and descriptions) for the action on the captioned TV program shows on screen. (See Important Note on this page.)

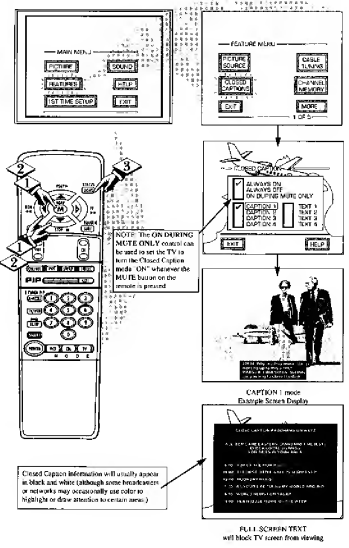
TEXT 1, 2, 3, 4: often used for channel guide, schedules, or bulletin board information for CC programs.

After making your Caption mode selection, press the STATUS button to clear the TV screen. The selected Closed Caption mode will be active. To cancel, set the Closed Captioned feature to OFF when finished.

SMART HELP

Remember. Broadcast stations will often use spelling abbreviations, symbols, dropouts and other grammatical shortcuts in order to keep pace with the on-screen action. These type factors vary upon the source of the captioned text material and do not indicate a need for service on the part of the TV.

NOTE: Not all TV programs and product commercials are made for broadcast with Closed Caption (CC) information included. Neither are all Closed Caption modes (CAPTION 1, 4, or TEXT 1, 4) necessarily being used by a broadcast station during the transmission of a closed caption program. Usually "CAPTION 1" is the most used mode to view captioned material. Refer to your area's TV program listings for the stations and times of Closed Caption shows.



FEATURE MENU CONTROLS (CONTINUED)

CABLE TUNING

You need to make sure the TV is set to pick up either Cable TV or Antenna signals. In other words, the TV needs to know if you connected a Cable TV signal or a normal antenna to its ANTENNA plug.

NOTE: If you went through First Time Setup (in your Quick Use Guide), this task has already been completed for you.

BEGIN
Select CABLE CHANNEL TUNING control.

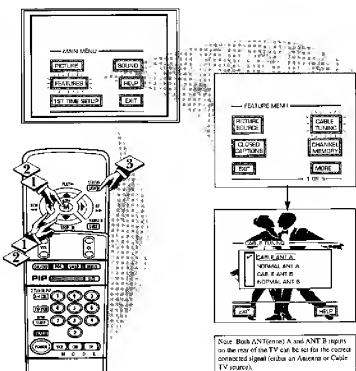
With the FEATURES MENU on screen, move the RED highlight with the MENU (M) button. Then press the MENU button.

Press the MENU (M) buttons to move the RED highlight. Press the MENU button to select (M) the desired mode - For Example: CABLE.

CABLE: If you DO have Cable TV connected to the TV, Channels 1-125 available.

NORMAL: If you have an Antenna connected to the TV, Channels 2-69 available.

Press the STATUS button to clear the screen.



SELECTING THE PICTURE SOURCE FOR PIP

PIP SOURCE

The picture for the PIP window can come through either the ANTENNA or B inputs or the AUX Video inputs (on the rear and side of the TV). PIP Picture Source simply tells the TV which one of these sources it is to show in the PIP window.

BEGIN
Select PIP SOURCE control.

With FEATURES MENU (4 of 5) on screen, move the RED highlight with the MENU (M) button. Then press the MENU button.

Press the MENU (M) and MENU (M) buttons to highlight and select the desired (M) PIP Picture Source.

ANT A or B: for a picture signal coming from either the ANTENNA A or B input plug on the TV.

NOTE: The remote control's (M) button can also be used to quickly swap between the picture sources for the TV's Main screen and the PIP window.

AUX 1 VIDEO: for a picture signal coming from the AUX 1 VIDEO IN jack on the rear of the TV.

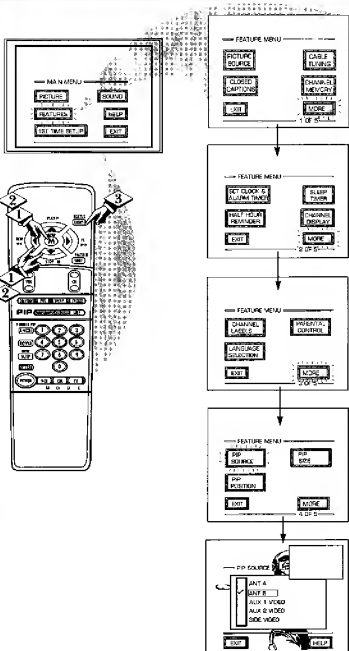
AUX 2 VIDEO: for a picture signal coming from the AUX 2 VIDEO IN jack on the rear of the TV.

SIDE VIDEO: for a picture signal coming from the SIDE VIDEO input jack on the right side of the TV cabinet.

Press the STATUS button to clear the screen.

SMART HELP

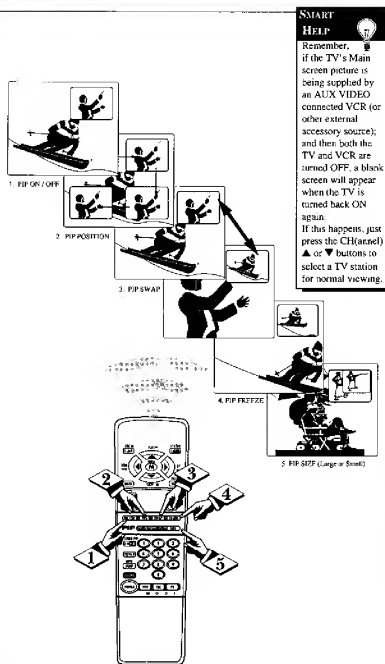
Remember. The PIP window will be blank unless a signal is connected to the selected PIP Picture Source (ANT A, AUX VIDEO, SIDE VIDEO, etc.) on the TV. If you see the same picture on the main screen and in the PIP window, you may have the Main Screen and PIP window set to the same video input source.



USING PIP WITH THE REMOTE CONTROL

By using the PIP buttons on the remote the PIP picture can be moved and swapped with the main screen. The main screen picture can also be frozen in the PIP window.

- Press the PIP ON/OFF button** to show the PIP picture. PIP appears in a corner of TV screen. Press PIP ON/OFF again to remove PIP from the main screen.
- Press the PIP POSITION button** to move the PIP picture (from corner-to-corner on the TV screen). This feature allows you to move PIP and avoid blocking off any main screen action.
- With PIP on the TV screen, press the SWAP button** to swap the main screen picture with the PIP picture. See "Smart Help" note on this page.
- Press FREEZE** to hold the current MAIN screen picture in the PIP window (Main picture is still active). If PIP is currently OFF, the PIP window will automatically appear. Press FRZ repeatedly to update the frozen PIP with current pictures from the Main screen. You cannot reposition a Frozen PIP picture. Press the PIP ON/OFF button to drop the frozen PIP picture from the screen.
- Press the PIP SIZE button** to change the size of the PIP window shown on the TV screen. Press the PIP SIZE button again to see and compare the large and small size PIP windows. You cannot change the size of a frozen PIP picture.



SMART HELP
Remember, if the TV's Main screen picture is being supplied by an AUX VIDEO connected VCR (or other external accessory source), and then both the TV and VCR are turned OFF, a black screen will appear when the TV is turned back ON again. If this happens, just press the CHANNEL ▲ or ▼ buttons to select a TV station for normal viewing.

FEATURE MENU CONTROLS (CONTINUED)

CHANNEL MEMORY AUTO-PROGRAMMING

Your TV can automatically set itself for local area (or Cable TV) channels. This makes it easy for you to select only the TV stations in your area when the CHANNEL ▲▼ buttons are pressed.

NOTE: If you went through First Time Setup in your Quick Use Guide, this task has already been completed for you.

- Select **CHANNEL MEMORY (START AUTO-PROGRAMMING)** control.
- With the **FEATURES MENU** on screen, move the RED highlight with the **MENU (M)** buttons. Then press the **MENU** button.

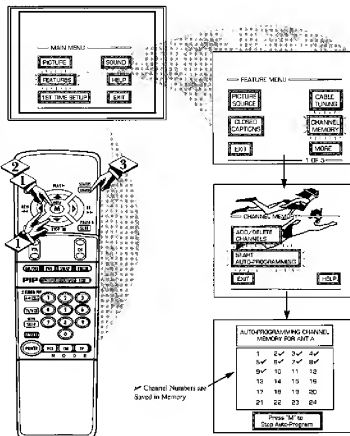
The TV shows which channel numbers are "SAVED" (✓) as they are added into memory.

"Auto-programming CHANNEL MEMORY" is finished" shows when the TV is through adding channels.

- Press the **STATUS** or **Menu (M)** button to clear the screen.

SMART HELP

Try it out. Press the **CHANNEL ▲▼** buttons and see which channels you can select. Remember, an Antenna or Cable TV signal must first be connected to your TV so that channels can be saved. If you want to delete any unwanted channels from the TV's memory, see "ADD/DELETE CHANNELS" on the next page.

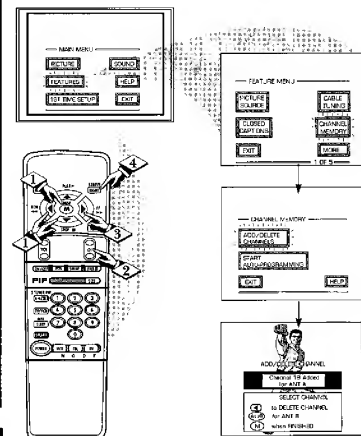


FEATURE MENU CONTROLS (CONTINUED)

ADD/DELETE CHANNELS

Auto-Programming (see previous page) adds all the channels it can find (on your Antenna or Cable TV system) into the TV's memory. **Add/Delete Channels** makes it easy for you to add other channels, or drop unwanted channels, from the list of channels in the TV's memory.

- Select **CHANNEL MEMORY (ADD/DELETE CHANNELS)** control. With the **FEATURES MENU** on screen, move the RED highlight with the **MENU (M)** buttons. Then press the **MENU** button.
- Press the **CHANNEL ▲▼** or **number** buttons to select the channel you want to add or delete.
- Press the **MENU** button to ADD the channel into the TV's memory. Press the **MENU** button to DELETE the channel from memory. Repeat steps 2 and 3 for each channel you wish to add or delete.
- Press the **STATUS** or **MENU** button to clear the screen when through.



SMART HELP

Remember, You can also add the **AUX 1 VIDEO**, **AUX 2 VIDEO**, **AUX 1 Y Pb Pr**, or **SHD VIDEO** modes just like a channel. Then by pressing the **CHANNEL ▲▼** buttons the **AUXiliary** mode can quickly be selected to use the desired set of input jacks (see page 29). **Note:** **AUXiliary** VIDEO modes are located between the lowest and highest channel numbers within the **ADD/DELETE CHANNEL** control screen.

NOTE: A separate **AUXiliary PIP CHANNEL** memory may also be created for the **ANTenna B** input in the rear of the TV. If an **Antenna or Cable TV** signal has been connected, just press the **PIP SOURCE SELECT** button on the remote, while in the **ADD/DELETE CHANNEL** mode, to switch between the **AUX 1** and **ANT B** channel memory lists. This follows steps 2 and 3 as shown to the left and add or delete the desired channel.

Now that you have completed the required connections on the previous page you are ready to follow the simple steps shown below.

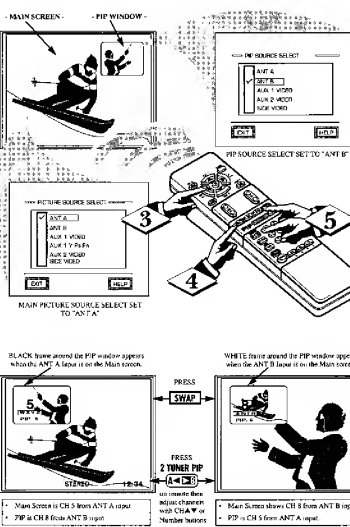
- Turn the TV ON. Place the TV's **PIP SOURCE SELECT** control to "ANT B".
- With **FEATURES MENU** (4 of 5) on screen, move the RED highlight with the **MENU (M)** buttons. Then press the **MENU** button.
- Also place the TV's Main screen **PICTURE SOURCE SELECT** control to "ANT A".
- See the **Picture Source** option **FEATURES MENU** (1 of 5).
- Press the **STATUS** button to clear the screen when the above Menu items have been set.

- Press the **PIP ON/OFF** button on the remote. The PIP window should show in one of the corners of the TV screen.

- Press the **SWAP** (or **SWAP**) buttons on the remote to move the **ANT B** and **ANT A** input pictures between the PIP window and Main screen. Use the **Channel Number** or **CH ▲▼** buttons to select desired programs for viewing. Program Sound occurs with the channels displayed on the Main screen.

SMART HELP

Remember, if you see the same picture on the main screen and in the PIP window, check to be sure the TV's **Picture Source Select** and **Main screen Picture Source Select** are set for **ANT B** and **ANT A** respectively. See the following page on how to operate other PIP features with the TV's remote control.



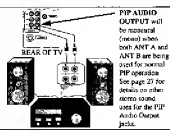
BLACK frame around the PIP window appears when the **ANT A** input is on the Main screen.

WHITE frame around the PIP window appears when the **ANT B** input is on the Main screen.

1. Main Screen is CH 5 from ANT A input. PIP is CH 8 from ANT B input.

2. Main Screen shows CH 8 from ANT B input. PIP is CH 5 from ANT A input.

NOTE: Sound for TV programs displayed in the PIP window can also be heard through the use of PIP **AUDIO OUT** jacks on the rear of the TV. Just connect the TV's **Left/Right PIP AUDIO OUTPUTS** to the correct **AUXiliary** inputs on an external stereo sound system (through which the PIP audio will be played).



HOW TO USE THE PICTURE-IN-PICTURE (PIP) FEATURE

Picture-in-Picture (PIP) is the showing of two pictures on the TV screen at the same time. (One main screen picture and one small inset picture - or PIP). For your ease and convenience this TV has two separate inputs (ANTENNA A and ANTENNA B) for your home's Antenna and/or Cable TV system signal. The ANT A input is primarily for the TV's main screen picture. The ANT B input is provided as a second, dedicated source option for the TV's PIP "window" and its feature operations. The signal connected to the ANT B input can be either a Split Signal Input (as described in the section on this page), or another type of external signal source (such as a satellite dish system, additional home antenna, video accessory, etc.).

See the following steps on how channels connected to the ANTenna B input can be shown and used within the PIP window.

- BEGIN**
- 1 Connect your Antenna or Cable TV signal to the single 75 ohm INPUT plug or a two-way Signal Splitter (not supplied). Connect two lengths of RF Coaxial Cable (F-type connectors on both ends) to the two OUTPUT plugs on the two-way Signal Splitter.

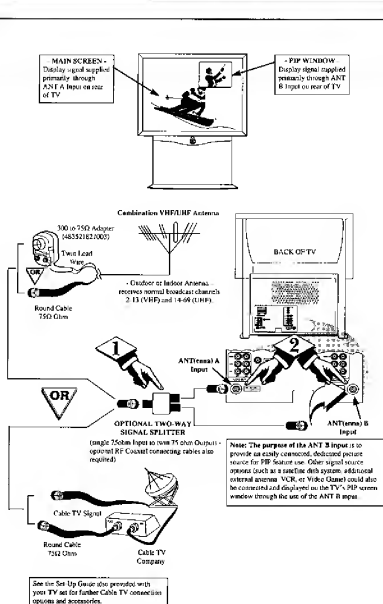
- 2 Connect the twin OUTPUT plugs on the Signal Splitter to the ANT A and ANT B inputs on the rear of the TV.

continue to next page

SMART HELP

For other possible PIP connections see page 51 for the "More PIP Connections" section.

If you need any accessories or parts to complete the described PIP connections, contact your dealer, or our Parts Information Center at (1-800-851-8885) for details.



FEATURE MENU CONTROLS (CONTINUED)

SET CLOCK

Your TV comes with an on screen clock. During normal operation the clock appears on the screen with every channel change (and when the STATUS button is pressed).

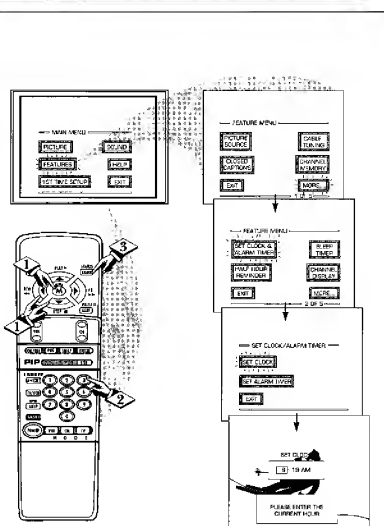
- BEGIN**
- 1 Select SET CLOCK control.
 - 2 With FEATURES MENU (2 of 5) on screen, move the RED highlight with the MENU (M) button. Then press the MENU button.
 - 3 Press the remote's number buttons to set the time clock.
 - 4 Press the STATUS button to set the clock in operation and clear the screen.

SMART HELP

Remember, be sure to press "0" first and then the hour number for single digit entries.

The remote's MENU (M) button can also be used to set the hours, minutes and AM/PM portions of the clock.

TV Clock settings may be lost when the TV is unplugged (or AC power to the set is interrupted).

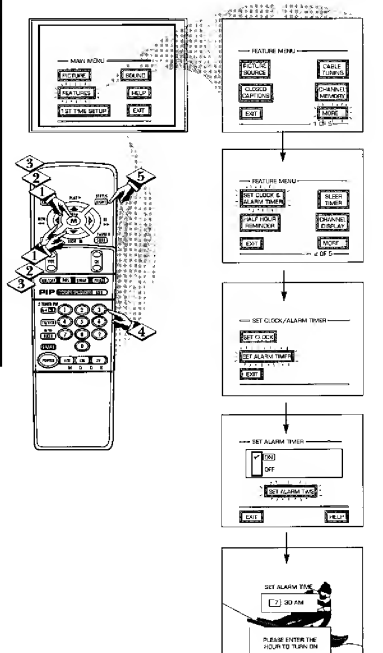


FEATURE MENU CONTROLS (CONTINUED)

SET ALARM TIMER

Just like an alarm clock you can set the TV to turn itself on at the same time everyday.

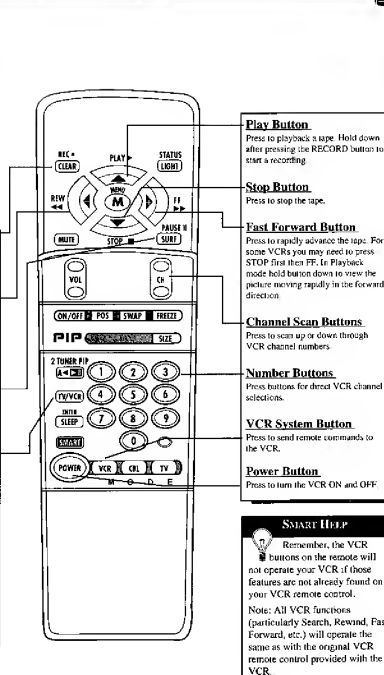
- BEGIN**
- 1 Select SET ALARM TIMER control.
 - 2 With FEATURES MENU (2 of 5) on screen, move the RED highlight with the MENU (M) button. Then press the MENU button.
 - 3 Press the MENU (M) and MENU (M) buttons to highlight and select "ON" (or "OFF").
 - 4 Press the MENU (M) button and then the MENU (M) buttons to select "SET ALARM TIME".
 - 5 Press the remote's number buttons to set the "TURN ON" time for the TV. (Press MENU (M) for AM or PM.)
 - 6 Press the STATUS button to set the "ALARM TIME" and clear the screen.



USING THE REMOTE'S VCR BUTTONS

When using the TV remote with a VCR, first make certain it is set to control your VCR (by the REMOTE CODE or SEARCH method - see earlier sections).

- BEGIN**
- 1 Press the VCR System button on the remote.
 - 2 Point the top of the remote toward the front of the VCR (remote sensor window) when pressing buttons.
- Record Button**
- Hold the RECORD button down, and then press the PLAY button to begin a VCR recording.
- Rewind Button**
- Press to rewind tapes. For some VCRs you may need to press STOP button first then REWIND. In playback mode, hold button down to view picture moving rapidly in reverse.
- Pause Button**
- Press to temporarily stop the tape during a playback, or recording. Press again to resume Pause.
- TV-VCR Button**
- Press to the VCR position ("VCR" indicator on the VCR will light) to view the playback of a tape. Press again to place in the TV position ("TV" indicator on the VCR will go OFF) to view one program while recording another program.
- When used with the TV the TV/VCR button works as a source button. Each press cycles the TV between the AUXILIARY input modes, ANT A/B inputs, and the last view channel. It is a quick one-button way to select these channels and modes (without directly entering the TV's Menu system.)



- Play Button**
- Press to playback a tape. Hold down after pressing the RECORD button to start a recording.
- Stop Button**
- Press to stop the tape.
- Fast Forward Button**
- Press to rapidly advance the tape. For some VCRs you may need to press STOP first then FF. In Playback mode hold button down to view the picture moving rapidly in the forward direction.
- Channel Scan Buttons**
- Press to scan up or down through VCR channel numbers.
- Number Buttons**
- Press buttons for direct VCR channel selections.
- VCR System Button**
- Press to send remote commands to the VCR.
- Power Button**
- Press to turn the VCR ON and OFF.

SMART HELP

Remember, the VCR buttons on the remote will not operate your VCR if these features are not already found on your VCR remote control.

Note: All VCR functions (particularly Search, Rewind, Fast Forward, etc.) will operate the same as with the original VCR remote control provided with the VCR.

REMOTE CONTROL DIRECT ENTRY CODES FOR ACCESSORY DEVICES

CONVERTER BRAND	REMOTE CODE NO.	CONVERTER BRAND	REMOTE CODE NO.
Archer	28	Kenmore	33
Diamond	23	Salora	52
Drake	37	Scientific Atlanta	08, 22, 47
Genm	45	Shurelco	54
Hamlin	14, 15	Starcom	30
Hitachi	25	Sylvania	16
Jenold	00, 01, 02, 03, 04, 05, 46, 55	Texcan	48
Macom	29, 38	Toscan	12, 13, 53
Magnavox	17, 31	Toshiba	43
NSC	49	Uniden Satellite	44
Oak	06, 27, 39	Unika	50
Panasonic	18, 35	Uniden Satellite	54
Philips	19, 20, 21, 24, 26	Universal	36
Pioneer	09, 32	Video Tech	40
Regency	10, 11	Video Way	51
		Zenith	07, 41, 42

FEATURE MENU CONTROLS (CONTINUED)

SLEEP TIMER

Have you ever fallen asleep in front of the TV only to have it wake you up at dawn in the morning with a test pattern screaming in your ears? Well, your TV can save you all that trouble by automatically turning itself off.

BEGIN
Press the SLEEP button on the remote control.

Note: you can also select the SLEEP control with the TV's on-screen FEATURES MENU (2 of 5). Move the RED highlight with the MENU (M) buttons. Then press the MENU button.

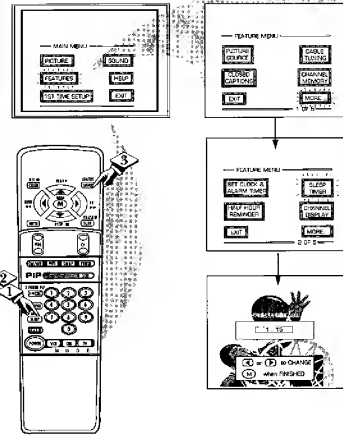
Press the SLEEP button repeatedly to pick the amount of time (15 minutes to 2 hours ahead) before the TV will turn itself off. The (+), (-) buttons can also be used to set the amount of time.

Press the STATUS or MENU (M) button to clear the screen after you have set the time for the TV to turn off.

SMART HELP

Remember, to see how many minutes are left before the TV shuts itself off, rescan the SLEEP TIMER control screen. To stop a SLEEP TIMER setting, reset the timer back to OFF. (Turning the TV off and on, or pressing a button during the last minute of a timer setting, will also cancel a setting.)

A few seconds before the TV is to shut off a message will come on the screen telling you **GOOD NIGHT**.



FEATURE MENU CONTROLS (CONTINUED)

CHANNEL DISPLAY

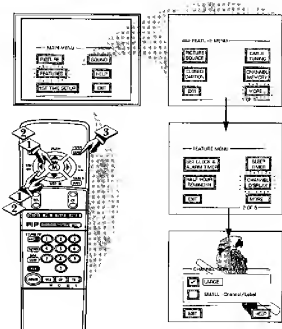
With the Channel Display control you can change the size and location of the on screen channel and clock information.

BEGIN
Select CHANNEL DISPLAY control.

With FEATURES MENU (2 of 5) on screen, move the RED highlight with the MENU (M) buttons. Then press the MENU button.

Press the MENU (M) and MENU (M) buttons to highlight and select (P) the LARGE or SMALL display control.

Press the STATUS button to clear the screen.



SMART HELP

Try it out. Press the CHANNEL (▲) buttons and you should see the Display Size you selected. Remember The SMALL SIZE display shows only the channel number, not the time (or clock).

HALF HOUR REMINDER

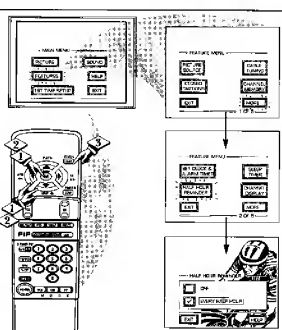
With the Half Hour Reminder control the TV automatically shows you the current time and channel every thirty minutes.

BEGIN
Select HALF HOUR REMINDER control.

With FEATURES MENU (2 of 5) on screen, move the RED highlight with the MENU (M) buttons. Then press the MENU button.

Press the MENU (M) and MENU (M) buttons to highlight and select (P) the EVERY HALF HOUR item.

Press the STATUS button to clear the screen.



SMART HELP

Remember, The Time and Channel Reminders will show on the hour and the half-hour for about five seconds.

REMOTE CONTROL DIRECT ENTRY CODES FOR ACCESSORY DEVICES

VCR BRAND	REMOTE CODE NO.	VCR BRAND	REMOTE CODE NO.
Aiko	24, 25, 36	Panasonic	01, 02, 52
Capchart	33	Philips	00, 05
Concord	13	Philips Video CD	37
Curis Mathis	42	RCA	04, 32, 47, 43, 44
Darwo	33	Samsung	22, 50
Emerson	20, 31, 34, 40	Satral	49
Fisher	06, 07	Sanyo	13
Golksie	23	Sears	08
Go Video	45, 46	Sharp	11, 12
Hitachi	03, 51	Shincom	25
JVC	14, 47, 48	Sony	09, 10, 41
Magnavox	00, 05	Technika	26
Mitsubishi	01, 02	Toshiba	18, 19
Multitech	16, 17, 38, 39, 50	Video Concepts	29
NFC	21	Zenith	07, 41, 42

SETTING THE REMOTE TO WORK OTHER DEVICES - SEARCH

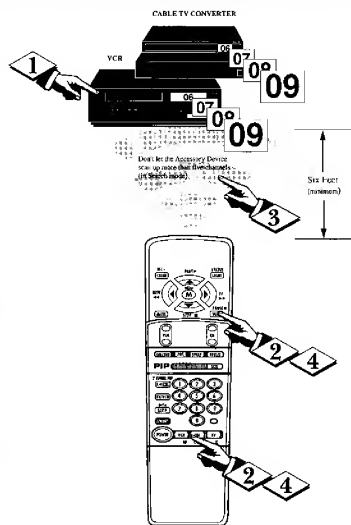
SEARCH METHOD

Your TV remote can be set to work various accessory devices (VCRs and Cable Converters) by what is called the **SEARCH METHOD**. Note: The Search Method only works with devices equipped with Channel Display Indicators or capability. If the "Direct Access" code number method (shown in the previous section) did not set your remote to work your accessory device, then follow the easy steps listed below.

- 1 Press the **POWER** button to turn ON the desired device you are attempting to search identify.
- 2 Stand at least six feet away from the front of the accessory device. Point the remote toward the unit. **HOLD DOWN** the **SURF** and the desired System (VCR or CBL) buttons at the same time. **KEEP HOLDING** BUTTONS DOWN.
- 3 Watch the Channel Indicator on the unit. Channel Numbers will **SCAN UP** when the unit has been identified. This may take up to two minutes.
- 4 Release the **SURF** and System (VCR or CBL) buttons as soon as channel numbers start to scan up. The code has been identified and the remote is ready to operate with the accessory device.

SMART HELP

Remember, a minute or two can seem very long, but the code should be located within two minutes. Don't let the accessory device scan up more than five channels. The remote may pass up the right code and another two minute search cycle will have to be repeated. If no channel change happens within two minutes, repeat steps 1-4. Should a channel change still not occur, the remote will not work with the desired unit.



FEATURE MENU CONTROLS (CONTINUED)

PARENTAL CONTROL

Parental Control allows parents to block out, or "censor," any channels they think children should not watch. A channel placed under Parental Control cannot be viewed until a correct access code is used to unlock the channel for viewing.

First let's set your Parental Code:

(BEGIN)

Select the **PARENTAL CONTROL**.

With **FEATURES MENU** (3 of 5) on screen, move the **RED** highlight with the **MENU** (M) button. Then press the **MENU** button.

'CHANNEL BLOCKING' and 'SETUP CODE' show on screen.

Press the **MENU** (M) and **MENU** (M) buttons to highlight and select the **SETUP CODE** item.

Press 0, 7, 1, 1 on the remote. "XXXX" shows on the **ACCESS CODE SETUP** screen as you press the number buttons.

"INCORRECT ACCESS CODE - TRY AGAIN" will also show on the screen.

Press 0, 7, 1, 1 on the remote again.

Next Enter: Your New Access Code "shows on the screen.

Enter a new four digit number using the remote.

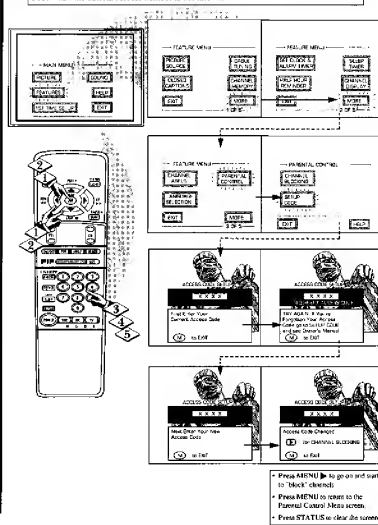
"Access Code Changed" shows on the screen to let you know the new code has been set.

Continue to the next page to find out how to "block" channels from viewing.

SMART HELP

Parents - it isn't possible to unlock or defeat your Censor Code without changing to a new code number. So if your Code number changes, and you don't change it yourself, then you will know that someone has altered the code and the blocked out channel has been viewed.

NOTE: Your TV left the factory with the Parental Code set to "0000". If you are using your TV and the Parental Control for the first time, and don't want to **SETUP** a new Access code number, you can use the "0000" number to block channels - see next page. The "0011" Parental Code (shown on this page) is given as a default way to reset the Code when the current Access number is not known.



Press **MENU** to go on and set to "block" channels.
Press **MENU** to enter to the Parental Control Menu screen.
Press **STATUS** to clear the screen.

FEATURE MENU CONTROLS (CONTINUED)

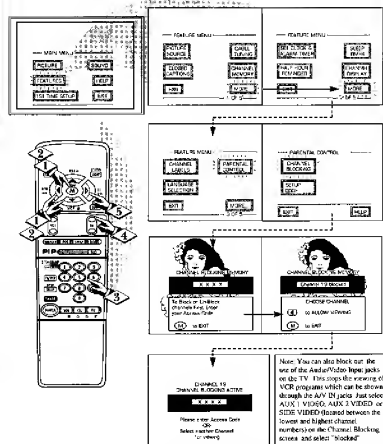
PARENTAL CONTROL

After your personal Parental Code number has been set (see previous page), you are now ready to select the channels you want to block out or censor.

- 1 Select the **BLOCK CHANNELS** control.
- 2 With **FEATURES MENU** (3 of 5) on screen, move the **RED** highlight with the **MENU** (M) button. Then press the **MENU** button.
- 3 Press the **MENU** (M) and **MENU** (M) buttons to highlight and select the **CHANNEL BLOCKING** item.
- 4 Enter the correct Parental Code number.
- 5 Press **Channel** (A) or **Channel** (M) buttons to select the channel you want to block.
- 6 Press the **MENU** (M) button to "BLOCK VIEWING" on the selected channel. Press the **MENU** (M) button to "ALLOW VIEWING" on a blocked channel. Repeat steps 3 and 4 for any other channels you wish to block out.

SMART HELP

Remember, once set Parental Control blocks out the selected channel number on both the ANT A and ANT B channel rings. Also, to make TV viewing easier all channels (for both ANT A/B and Audio/Video Input jacks) will be unlocked, once the correct Parental Code number has been entered. When the TV is turned OFF and then back ON again, it when Parental Control is back in place for all blocked out channels.



BLOCKED CHANNEL SCREEN MESSAGE
(Appears when an attempt is made to view a blocked channel.)

NOTE: When you block out the use of the Audio/Video Input jacks on the TV, this limits the use of VCR components which use the above through the ANT B jacks. Just select AUDIO, VIDEO, AUDIO, VIDEO, or VIDEO VIDEO (located between the Channel and Channel Blocking screens) and select "Blocked".

SETTING THE TV REMOTE TO WORK ACCESSORY DEVICES (CONTINUED)

DIRECT ACCESS METHOD

Now that you have looked up the two-digit Remote Code Number for your brand of accessory device (see page 43-44), you are ready to follow the simple steps shown below.

Please read through all the steps before beginning.

(BEGIN)

Press and release the **REC** (RECORD) button.

Within thirty seconds after releasing the **REC** button, press and release the correct **VCR** or **CBL** System button.

Within thirty seconds after releasing the **VCR** or **CBL** System button, **ENTER THE TWO DIGIT CODE NUMBER** for the desired device. The remote is now ready to send commands to the accessory.

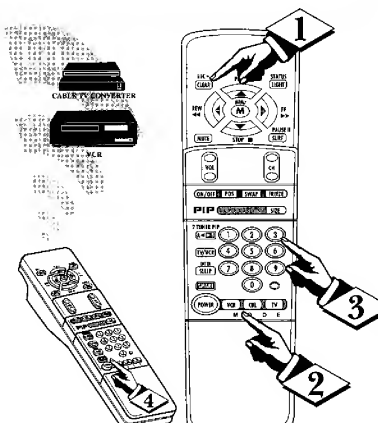
Point the remote at the accessory device. Press the **POWER** button on the remote to turn the device ON.

SMART HELP

Remember, if this doesn't work the first time, repeat steps using the same remote code number.

If after a second try the remote does not operate your accessory device, and there are more code numbers listed for your brand, use the next listed code number.

If after repeated attempts the code number method does not work your accessory device, try the "SEARCH METHOD" shown on the following page.



SETTING THE TV REMOTE TO WORK ACCESSORY DEVICES

Your remote control is set to work your TV and many infrared remote (IR) control VCRs and Cable TV Converter Boxes. However, an easy one-time step may be necessary before the remote will work with your accessory devices. To begin, try this initial check to see if going on to the following section is necessary.

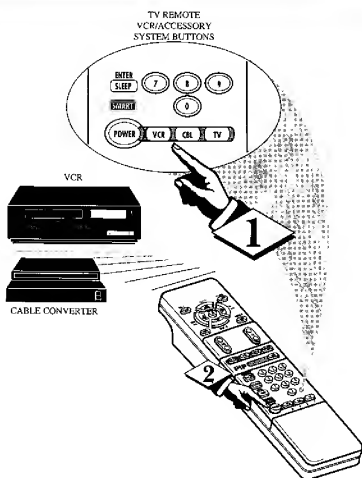
(BEGIN)

- 1 Press the VCR or CBL (Cable) System button on the TV remote for the desired accessory device category. Note: The CBL (Cable) system button contains product codes for Cable TV Converters, the VCR button contains product codes for various brand VCRs.
- 2 Point the TV remote toward the desired accessory device and press the POWER button.
- 3 Does the remote turn the accessory device ON? IF YES, and try other functions on the TV remote. If they also work the accessory device, then the remote is ready and no further steps are needed. IF NO, continue.

- 1 First look up a TWO-DIGIT remote code number for your brand of Accessory Device before going through the simple Direct Access Method steps shown on the following page. Find your Two Digit Code Number on pages 43-44.

SMART HELP

Remember, if more than one number is listed, you may have to try more than the first two-digit code given in order to locate your device's correct code.



FEATURE MENU CONTROLS (CONTINUED)

CHANNEL LABELS

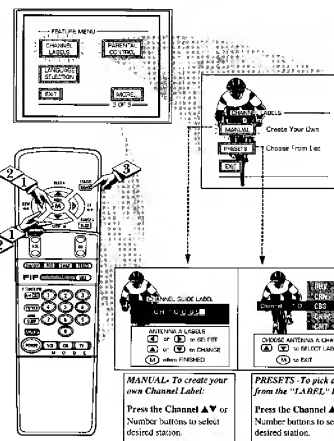
Do you ever have trouble remembering on which channel a particular station or network is located? The Channel Labels Control is a quick way to view and select channels from a list of Labeled channels.

A Label is a four letter callout you can set to appear with the on screen channel number. Example: Label: WXYZ - for a TV station's call letters.

To select channels from the Channel Labels Control.

(BEGIN)

- 1 With the FEATURE MENU screen (3 of 5) on the TV's screen, move the RED highlight using the MENU (M) button to select CHANNEL LABELS. Press the MENU (M) button.
- 2 Press the MENU (M) and MENU (M) buttons to highlight and select either "MANUAL" to create your own label for a channel. "PRESETS" to choose from a list of prewritten channel labels. (See instruction details on this page.)
- 3 Press the STATUS button to clear the screen.



MANUAL: To create your own Channel Label:

Press the Channel ▲ or Number buttons to select desired station.

A red highlight shows the active letter space for the channel label.

Press the Channel ▲ or Number buttons to pick any of the letters or symbols that are given for your use.

Press the MENU button to move the red highlight to the other letter spaces and repeat.

Press the STATUS button to clear the screen when finished.

PRESETS: To pick a Label from the "LABEL" list:

Press the Channel ▲ or Number buttons to select desired station.

Press the Channel ▲ or Number buttons to move up and down the Channel Label list.

Just stop on any label you might want to use.

The selected label automatically appears with channel changes and when the STATUS button is pressed.

Press the STATUS button to clear the screen when finished.

FEATURE MENU CONTROLS (CONTINUED)

LANGUAGE

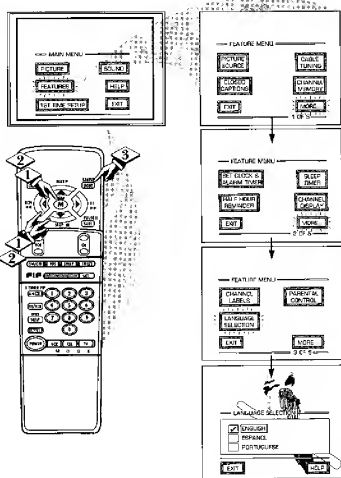
Note: If you went through First Time Setup, this task has already been completed for you. For our Spanish and Portuguese speaking TV owners an on screen LANGUAGE option is present. With the LANGUAGE control you can set the TV's on screen features to be shown in either English, Spanish or Portuguese.

(BEGIN)

- 1 Select the LANGUAGE DISPLAY screen. With FEATURES MENU (3 of 5) on screen, move the RED highlight with the MENU (M) button. Then press the MENU (M) button.
- 2 Press the MENU (M) and MENU (M) buttons to highlight and select (SP) English, Spanish, or Portuguese on the display control.
- 3 Press the STATUS button to clear the screen.

SMART HELP

Remember, the Language control only makes the TV's on screen (MENU) items appear in English, Spanish, or Portuguese text. It does not change the other on screen text features such as Closed Captioned (CC) TV shows.



REMOTE CONTROL OPERATION (CONTINUED)

2-CHANNEL SURF/SMART SURF

A list of series of previously viewed channels can be selected with the SURF button on your remote control. With this feature you can easily switch between different TV programs that currently interest you. The Smart Surf control allows you to set up to 10 channels in its quick viewing "list".

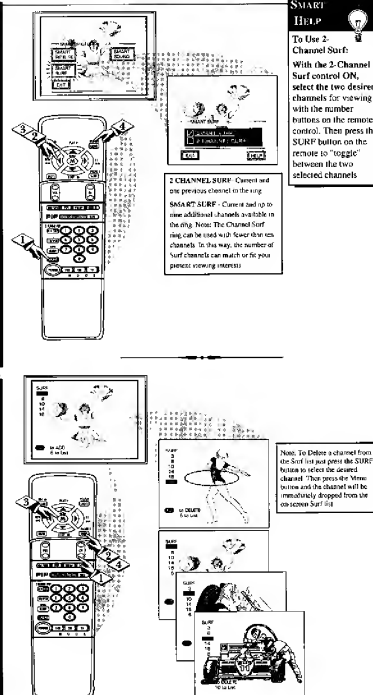
(BEGIN)

- 1 Press the Smart button on the remote.
- 2 With the SMART Menu on screen, move the RED highlight with the MENU (M) button. Press the MENU button to select the highlighted Smart Surf control.
- 3 Press the Menu ▲ or ▼, then the Menu (M) button to select either Smart Surf or 2-Channel Surf (See explanation of Surf options with the illustration on this page.)
- 4 Press STATUS button on the remote control to clear the screen.

HOW TO USE SMART SURF

(BEGIN)

- 1 With the Smart Surf control ON (see above), select a desired channel for viewing. You can use the number buttons on the remote (or the Channel ▲ buttons).
- 2 Press the SURF button on the remote. (Some channel numbers may already appear within the Surf channel list.)
- 3 Press the Menu button to "ADD" the selected channel to the Surf list. Select the next desired channel and repeat steps 2 and 3. Continue until all desired channels are on the Surf list.
- 4 Press the SURF button on the remote to quickly review current action on channels contained within the Surf list.



SMART HELP

To Use 2-Channel Surf: With the 2-Channel Surf control ON, select the two desired channels for viewing with the number buttons on the remote control. Then press the SURF button on the remote to "toggle" between the two selected channels.

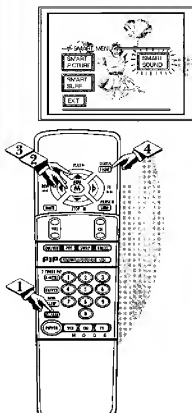
Note: To Delete a channel from the Surf list, press the SURF button to select the desired channel. Then press the Menu button and the channel will be immediately dropped from the on screen Surf list.

REMOTE CONTROL OPERATION (CONTINUED)

SMART SOUND

The Smart Sound control offers four original sound mode settings for different types of TV programming.

- 1 Press the SMART button on the remote.
- 2 With the SMART Menu on the screen, move the RED highlight with the MENU (M) button. Then press the MENU (M) button to select the highlighted Smart Sound control.
- 3 Press the MENU (M) button to move the RED highlight between the various TV sound settings (For example: Music Theater, Voice, or Normal.) Then press the MENU (M) button to select the desired Smart Sound mode.
- 4 Press the STATUS button to clear the screen when completed.



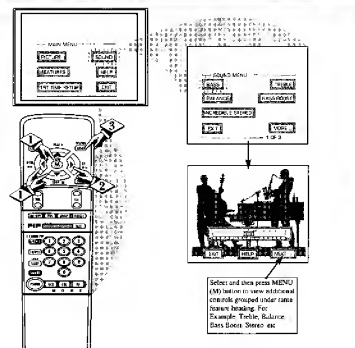
• **NORMAL** provides a good balance for both voice and musical content programming.
 • **MUSIC** emphasizes the low to low-mid range sounds available with music broadcast.
 • **VOICE** provides better high range frequency sound with action suitable for action programs, news or talk show program content.
 • **THEATER** simulates the sound field or dynamic sound programming. Audio sound output is heightened to simulate the experience of being in the cinema or theater.

SOUND MENU CONTROL ADJUSTMENTS

BASS, TREBLE, BALANCE

Your TV also has individual sound adjustment controls. The BASS (low frequency), TREBLE (high frequency), and Speaker BALANCE may all be used to adjust the sound playback of TV programs.

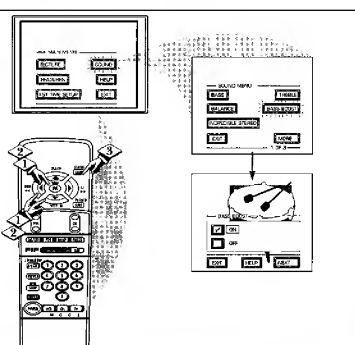
- 1 Select BASS, or TREBLE, or BALANCE sound control.
- 2 With the SOUND MENU on the screen, move the RED highlight with the MENU (M) button. Then press the MENU button.
- 3 Press the (+) or (-) buttons to adjust the sound control to levels you prefer.
- 4 Press the STATUS button to clear the screen.



BASS BOOST

The BASS BOOST control increases the low-frequency audio range of the TV. This creates a deeper, fuller playback sound which can be heard through the TV's speakers.

- 1 Select BASS BOOST sound control.
- 2 With the SOUND MENU on the screen, move the RED highlight with the MENU (M) button. Then press the MENU button.
- 3 Press the MENU (M) and MENU (M) buttons to highlight and turn ON (or) the BASS BOOST control.
- 4 Press the STATUS button to clear the screen.



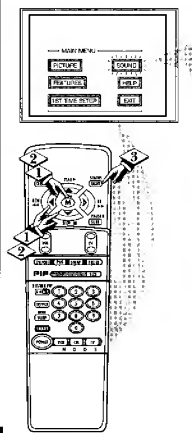
SOUND MENU CONTROLS (CONTINUED)

STEREO

Your TV is able to receive broadcast stereo TV programs. The TV is equipped with an amplifier and twin speaker system through which the stereo sound can be heard.

Note: STEREO will appear on the TV's channel status screen to indicate when a stereo broadcast signal is available and received.

- 1 Select STEREO sound control.
- 2 With the SOUND MENU on the screen, move the RED highlight with the MENU (M) button. Then press the MENU button.
- 3 Press the MENU (M) and MENU (M) buttons to highlight and turn ON (or) the STEREO mode.
- 4 Press the STATUS button to clear the screen.



Remember: If a stereo signal is not available and the TV is placed in the STEREO mode, sound coming from the TV will remain monaural (mono).

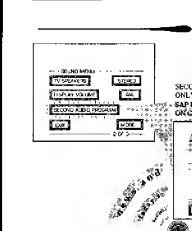
With the SOUND MENU on the screen, move the RED highlight with the MENU (M) button. Then press the MENU button.

Press the MENU (M) and MENU (M) buttons to highlight and turn ON (or) the STEREO mode.

SECOND AUDIO PROGRAM

Second Audio Program (SAP) is part of the stereo broadcast system. SAP as an additional audio channel SAP can be heard apart from the current TV program sound. TV stations are free to use SAP for any number of purposes, but many experts believe it will be used for foreign language translations of TV shows (or for weather and news bulletins).

NOTE: If a SAP signal is not present with a selected program, the SAP option can not be selected. This program does not contain SAP information will show on the TV screen.



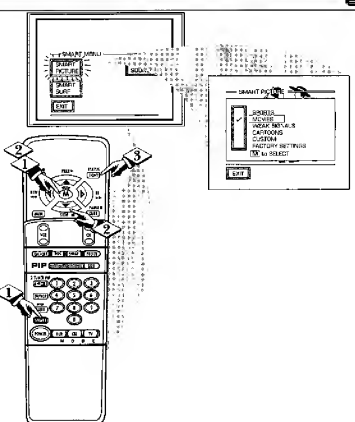
SECOND PROGRAM SOUND CAN ONLY BE SELECTED WHEN SAP INFORMATION IS RECEIVED ON CURRENT CHANNEL.

REMOTE CONTROL OPERATION (CONTINUED)

SMART PICTURE

Following your initial setup adjustments (see previous page), just select the desired Smart Picture category in order to place the TV in the personalized set of audio and video control settings for that title.

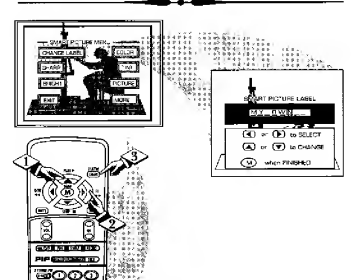
- 1 Press the SMART button on the remote.
- 2 Then press the MENU button to select the SMART PICTURE control feature.
- 3 Press the MENU (M) button to move the RED highlight with the list of "SMART PICTURE" categories on the TV screen to highlight the desired category. Then press the Menu (M) button to select the audio and video control settings for that particular title.
- 4 Press the STATUS button on the remote to clear the screen.



CHANGE LABEL

The "CHANGE LABEL" control can be used to change the title of SMART PICTURE setting into a name or label that may be easier for you to remember.

- 1 With the SMART PICTURE "CHANGE LABEL" control on the screen, press the MENU (M) button to spell out a new label or title for the selected SMART PICTURE category.
- 2 Press the MENU (M) button to move the red highlight to each letter space.
- 3 Press the STATUS button to clear the screen when the new label is finished.



USING THE REMOTE LOCATOR FEATURE

Have you ever played hide and seek with your remote control? Are you tired of hearing the house apart trying to find if someone has stuffed the remote under the couch, put it on the shelves, or hid it in the desk? Well, your TV remote can save you all that looking by automatically signaling its location to you. Here's how it works:

- 1 Press the POWER button on the set to turn the TV ON.

Note: Normally you can press any button on the front of the TV to turn the set ON. But for the remote locator to work you need to be sure to use the Power button at the TV. A "locating remote" message shows on the TV screen.

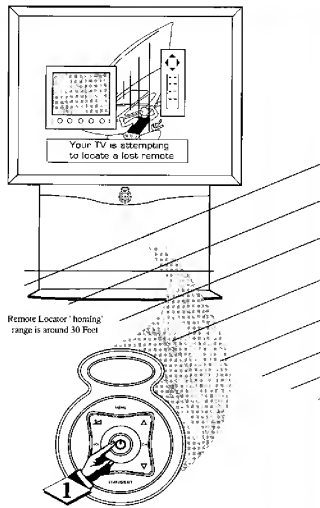
- 2 Within a few seconds a chirping or beeping sound will begin to come from the remote control hand unit.

The remote will continue to signal its location for around 30 seconds. Normal TV program sound will not be heard while the remote locator is working.

- 3 Once you find the remote just press any button on the remote and the beeping sound will stop. The remote is now ready for normal TV feature use.

SMART HELP

Remember, the remote locator may not properly receive its "homing" signal from the TV if it has been placed on a metal shelf or counter material. Also, since there's a special type of radio frequency "homing" signal receiver inside the remote, we are required to notify you that any changes or modifications not expressly approved by Philips Consumer Electronics Company could void the user's authority to operate the remote equipment.



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SOUND MENU CONTROLS (CONTINUED)

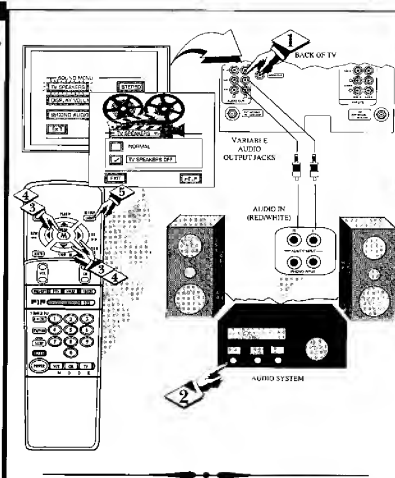
TV SPEAKERS

Would you like to hear TV programs through your audio hi-fi system? The TV's Variable Audio Output jacks and TV Speaker On/Off control work together to offer you that TV sound option.

- 1 Connect the (Right) and (Left) VARIABLE AUDIO OUT jacks on the TV to the R and L Audio Input jacks on your amplifier or sound system.
- 2 Set the audio system's volume to normal listening level.
- 3 Turn the TV and audio system ON. You can now adjust the sound level coming from the audio system with the Volume Δ buttons on the TV or remote.
- 4 To hear the TV sound from only the audio system speakers, select TV SPEAKERS control. With SOUND MENU (2 of 3) on screen, move the RED highlight with the MENU (M) buttons. Then press the MENU button.
- 5 Press the MENU Δ and MENU (M) buttons to highlight and turn OFF (off) the TV SPEAKERS control. You should now only hear TV sound coming from the audio system speakers.
- 6 Press the STATUS button to clear the screen.

SMART HELP

Remember, the audio system may have to be in AUXILIARY mode to play sound from the TV (Outputs). Note: When the TV SPEAKER control is set to "NORMAL," (for TV speaker operation) make sure the VARIABLE AUDIO OUTPUT control (see next page) is also set to "STEREO" in order for the TV's AUDIO OUTPUT jacks to work properly.



NOTE: The TV's FIXED AUDIO OUTPUT jacks can also be used for the playback of TV program sound with an external audio amplifier, or home theater hi-fi system. Connection of the FIXED AUDIO OUTPUT(s) is similar to the Variable Audio Outputs (as shown above). However, specific sound level adjustments will be made with the controls at the external amplifier or home sound system (instead of through the TV's audio level controls).

NOTE: The TV's PIP AUDIO OUTPUT jacks can also be used for additional stereo playback options such as wireless transmitter, headphones hook up, or as an external amplifier connection source. However, with normal PIP feature operations (other than the ANT A and ANT B input sources are connected for use), the PIP AUDIO OUTPUTS will switch from stereo to mono (mono) sound. Stereo sound will only be available with the TV's Main system (or ANT A supplied signal) at that time.

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SOUND MENU CONTROLS (CONTINUED)

SURROUND SOUND

By adding optional external speakers to the TV's sound system, you can create the feeling of reflected sound that surrounds you at a movie theater or concert hall.

- 1 Connect both external speakers to the speaker wire terminals on the TV.

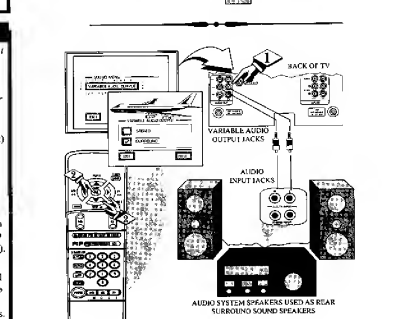
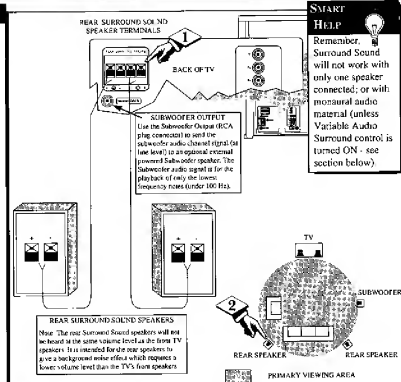
Recommended speakers: 8 ohm, 15 watt minimum. Be sure the (+) and (-) speaker wires are connected to the correct (Right) and (Left) speaker terminals on the TV.

- 2 Place the speakers to the viewing area is between the TV and the rear surround speakers. (See overhead view drawing.)
- 3 Turn TV ON and place the STEREO control to the STEREO IF AVAILABLE (off) position. After setup whenever a stereo signal is received the audio will be heard in Surround Sound.

VARIABLE AUDIO OUTPUT

The TV's Variable Audio Output jacks can also be used for Surround Sound. Once they are connected to an external hi-fi system its speakers can be used for the playback of Surround Sound.

- 1 Connect the (Right) and (Left) VARIABLE AUDIO OUT jacks on the TV to the R and L Audio Input jacks on your amplifier or sound system.
- 2 Turn TV ON and place the VARIABLE AUDIO OUTPUT on screen control to the SURROUND (off) position. (Sound Menu 3 of 3). Note: This will change the Left/Right channel audio line level signal at the Audio Output jacks to the same signal found at the TV's Surround Sound Speaker terminals.



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USING THE AUDIO/VIDEO OUTPUT JACKS (CONTINUED)

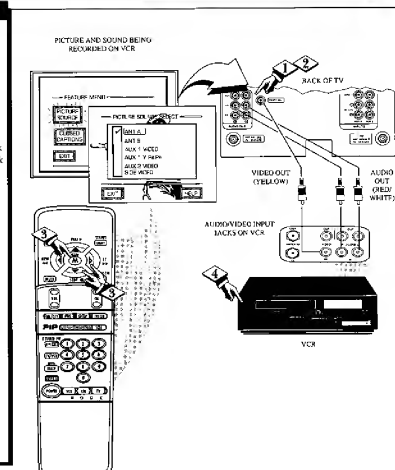
AUDIO/VIDEO OUTPUTS

The Audio/Video Output jacks on the TV can be used to record TV programs on VCRs which have Audio/Video Input jacks.

- 1 To record TV programs by using the Audio/Video jacks on the TV:
- 2 Connect the VIDEO OUT jack from the TV to the VIDEO IN jack on the VCR.
- 3 Connect the AUDIO OUT jacks (Right) and (Left) from the TV to the AUDIO IN jacks on the VCR.
- 4 Select the "ANTENNA A" PICTURE SOURCE control on the TV. With the FEATURES MENU on screen, move the RED highlight with the MENU (M) buttons. Then press the MENU button.
- 5 Turn the VCR ON. Put a cassette tape in the unit and place the VCR in the RECORD mode.

SMART HELP

Remember, if the VCR has an INPUT SELECTOR switch, place it in the LINE or CAMERA position. Unrecorded Time: Recordings with a VCR are possible, but not recommended with this connection since the TV must be left ON for the VCR to record.



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USING THE AUDIO/VIDEO INPUT JACKS (CONTINUED)

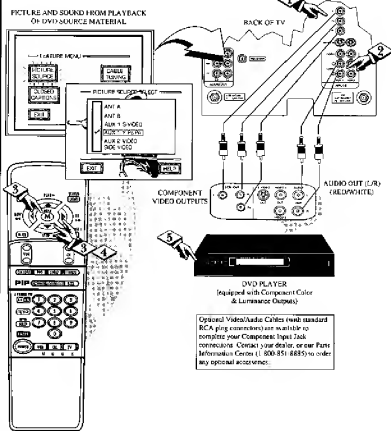
COMPONENT VIDEO INPUTS

Component Video Inputs provide for the highest possible color and picture resolution in the playback of digital signal source material such as with DVD players. The color difference signals (Pa, Pb) and the luminance (Y) signal are connected and received separately which permits for improved color bandwidth information (not possible when using composite video or S-Video connections).

- 1 Connect the Component (Y Pb Pa) VIDEO OUT jacks from the DVD player to the (Y Pb Pa) VIDEO IN (put) jacks on the TV.
- 2 Connect the AUDIO OUT jacks (Right and Left) from the DVD player to the AUX 1 AUDIO IN jacks on the TV.
- 3 Select the "AUX 1 Y Pb Pa" PICTURE SOURCE control on the TV. With the FEATURES MENU on screen, move the RED highlight with the MENU (M) button. Then press the MENU button.
- 4 Press the MENU (M) and MENU (M) buttons to highlight and select (P) the AUX 1 Y Pb Pa mode.
- 5 Turn the DVD player ON and press PLAY to view the source material playback on the TV.

SMART HELP

The descriptions for the component video connections may differ depending on the DVD player or accessory digital source equipment used (e.g. Y Pb Pa, R-YB-Y, Cb/Cr/Y, etc.). Although abbreviations and terms may vary, the letters "B" and "R" stand for the blue and red color component signal connectors and "Y" indicates the luminance signal. Refer to your DVD or digital accessory Owner's Manual for definitions and connection details.



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USING THE AUDIO/VIDEO INPUT JACKS

AUX VIDEO INPUTS

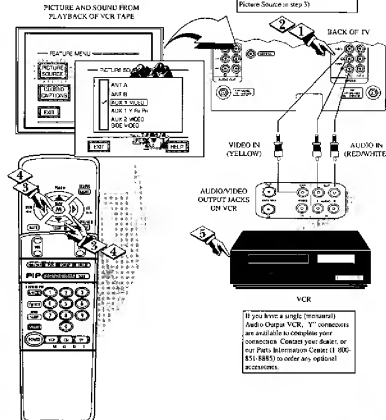
The TV's Audio/Video Input jacks are for direct picture and sound connections between the TV and a VCR (or Video Disc Player, etc.) that has Audio/Video Output jacks.

To view the playback of a VCR tape by using the Audio/Video Input jacks on the TV:

- 1 Connect the VIDEO OUT jack from the VCR to the AUX 1 VIDEO IN jack on the TV.
- 2 Connect the AUDIO OUT jacks (Right and Left) from the VCR to the AUX 1 AUDIO IN jacks on the TV.
- 3 Select the "AUX 1 VIDEO" PICTURE SOURCE SELECT control on the TV. With the FEATURES MENU on screen, move the RED highlight with the MENU (M) button. Then press the MENU button.
- 4 Press the MENU (M) and MENU (M) buttons to highlight and select (P) the AUX 1 VIDEO mode.
- 5 Turn the VCR ON and press PLAY to view the tape on the TV.

SMART HELP

Remember, after it is connected an easy way to select the AUX 1 VIDEO mode is to press the TV/VCR button on the remote. AUX 2 VIDEO, SIDE VIDEO, AUX 1 Y Pb Pa, ANT A/B, and the last channel viewed can also be selected in this way. Also, if you have added AUX 1 VIDEO to the TV's channel memory (see page 14), you can just press the CHANNEL button to select the AUX 1 mode.



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USING THE AUDIO/VIDEO INPUT JACKS (CONTINUED)

SIDE VIDEO INPUTS

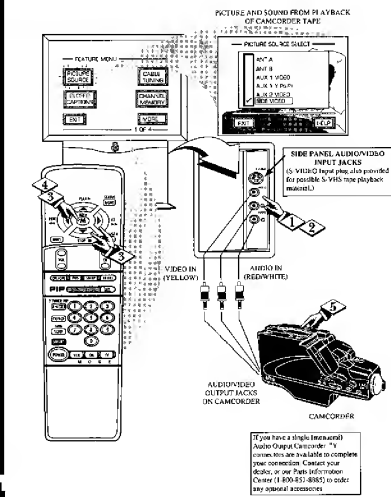
For more convenient Direct playback connections the TV's Side Video Input panel can be used. Located on the TV's right side panel (angled toward the front for easy access) these Audio/Video Input jacks allow for quick connections, particularly for the playback of Camcorder tape recordings.

To view the playback of a Camcorder recording using the Audio/Video Input jacks on the side of the TV:

- 1 Connect the VIDEO OUT jack from the Camcorder to the VIDEO IN jack on the side of the TV.
- 2 Connect the AUDIO OUT jacks (Right and Left) from the Camcorder to the AUDIO IN jacks on the side of the TV.
- 3 Select the "SIDE VIDEO" PICTURE SOURCE control on the TV. With the FEATURES MENU on screen, move the RED highlight with the MENU (M) button. Then press the MENU button.
- 4 Press the MENU (M) and MENU (M) buttons to highlight and select (P) the SIDE VIDEO mode.
- 5 Turn the Camcorder ON and press PLAY to view the tape on the TV.

SMART HELP

Remember, an easy way to select the SIDE VIDEO mode is to press the TV/VCR button on the remote. AUX 1 VIDEO, AUX 2 VIDEO, AUX 1 Y Pb Pa, ANT A/B, and the last channel viewed can also be selected in this way. Also, if you have added SIDE VIDEO to the TV's channel memory (see page 14), you can just press the CHANNEL button to select the SIDE VIDEO mode.



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USING THE AUDIO/VIDEO INPUT JACKS (CONTINUED)

AUX 1 S-VIDEO INPUTS

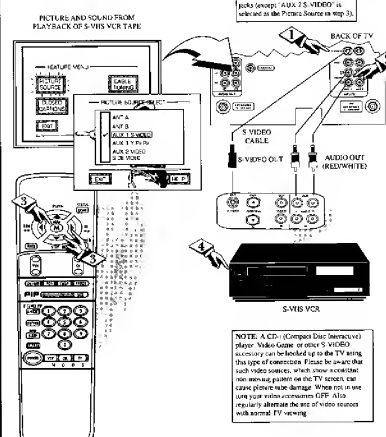
The Super Video connection on the rear of the TV can give you better picture detail and clarity for the playback of S-VHS VCR tapes or Video Discs, than the normal antenna picture connections.

Note: The VCR (or Video Disc Player) must have a S-VIDEO OUT (put) jack in order for you to complete the connections shown on this page.

- 1 Connect the S-VIDEO (S-VHS) OUT jack from the VCR to the S-VIDEO AUX 1 IN (put) jack on the TV.
- 2 Connect the AUDIO OUT jacks (Right and Left) from the VCR to the AUDIO AUX 1 IN (put) jacks on the TV.
- 3 Select the "AUX 1 S-VIDEO" PICTURE SOURCE control on the TV. With the FEATURES MENU on screen, move the RED highlight with the MENU (M) button. Then press the MENU button. The "AUX 1 S-VIDEO" picture source option appears only when a S-VIDEO cable has been connected to the TV's AUX 1 IN (put).
- 4 Turn the VCR ON and place it in the S-VIDEO (or S-VHS) playback mode. Insert S-VHS cassette tape and playback in a normal manner.

SMART HELP

Remember, after it is connected an easy way to select the AUX 1 S-VIDEO mode is to press the TV/VCR button on the remote. Also, if you have added AUX 1 to the TV's channel memory (see page 14), you can just press the CHANNEL button to select the S-VIDEO mode (when active).



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